

**COMMENTS ON TRIENNIAL REVIEW  
OF  
STANDARDS OF QUALITY FOR WATERS OF THE STATE  
N. D. ADMIN. CODE CHAPTER 33-16-02.1  
April 2010**

**Background**

The North Dakota Department of Health (department) is currently conducting a rulemaking proceeding to address proposed amendments to the Standards of Water Quality for North Dakota, N.D. Admin. Code Ch. 33-16-02. The purpose of the proposed amendments is to complete the department's triennial review of the Standards of Quality for Waters of the State, as required by 33 U.S.C. § 1313(c).

Included in the proposed amendments is a change to the sulfate numeric criterion in a segment of the Sheyenne River. If adopted, the proposed sulfate rule would change the maximum limit of sulfate from 450 to 750 milligrams per liter (mg/L) in the segment of the Sheyenne River that runs from its headwaters to 0.1 miles downstream from Baldhill Dam, including Lake Ashtabula. The proposed sulfate rule was originally issued as an emergency rule in July 2009, in accordance with the provisions of N.D.C.C. § 28-32-03. Last fall, the department held a public comment period, including three public hearings, to address whether to adopt the proposed sulfate rule as final.

In its comments, the United States Environmental Protection Agency (EPA) requested that the department include the proposed sulfate rule as part of the department's triennial review of the Standards of Water Quality for North Dakota. In response to EPA's request, the department decided not to adopt the emergency sulfate rule as a separate rule. Instead, as requested by EPA, the department included the proposed sulfate rule as one of the triennial review's proposed amendments to the state's water quality standards. The department then accepted public comments and held a public hearing on all of the proposed amendments to the state's water quality standards. Because the proposed sulfate rule was originally being evaluated in the separate emergency rulemaking proceeding, the department merged the record from that emergency rulemaking into this rulemaking. Therefore, the comments submitted on the proposed emergency sulfate rule during the comment period last fall are included in the record for this proceeding and have been responded to in this document.

**Response to Comments (Environmental Protection Agency - EPA)**

The EPA provided comments on the proposed revisions to Standards of Quality for Waters of the State. The EPA noted the comments are preliminary pending final submittal of the proposed triennial standards review

**EPA Comment:** The proposed site specific total sulfate criterion of 750 milligrams per liter (mg/L) for the Sheyenne River from its headwaters to 0.1 mile downstream from Baldhill Dam is protective of aquatic life. EPA also notes that the site specific criterion is also protective for agricultural uses. EPA recommends that a 750 mg/L be a maximum concentration and that the 30-day average be deleted.

**Response:** Department agrees and has made the appropriate changes to reflect a maximum sulfate concentration.

**EPA Comment:** The removal of the water supply designated use for the Sheyenne River from its headwaters to 0.1 mile downstream from Baldhill Dam is justified by the Department's supporting rational (Attachment I). The proposed change to the designated use for the upper portion of the Sheyenne River is reasonable and consistent with current and anticipated uses.

**Response:** Comment noted.

**EPA Comment:** Reservoirs located on Class IA, Class II or Class III streams shall have the parameter limitations for that class stream. EPA considers this to be a refinement to the current requirement and clarifies that parameter limitations are consistent in the reservoir located on that class of stream. The EPA states that the proposed revision is reasonable and appropriate.

**Response:** Comment noted.

**EPA Comment:** EPA supports the Department's proposal to delete the fecal coliform criteria in Table 1. The E. coli criteria adopted previously, and approved by EPA is retained for protection of recreational uses.

**Response:** Comment noted.

**EPA Comment:** Revisions to Water Quality Criteria - Table 2. EPA supports the adoption of these proposed new/revised criteria as consistent with EPA requirement to consider new scientific information and adopt revisions to water quality criteria as appropriate.

**Response:** Comment noted.

**EPA Comment:** The proposed revision for lakes clarifies that lakes not specifically named in Appendix II will be classified as Class IV. EPA views this change as important and necessary to ensure that water quality standards are identified for all lakes in North Dakota; not just specific lakes named in Appendix II.

**Response:** Comment noted.

## Response to Comments - City of Fargo

The following comments were provided by the city of Fargo.

**Comment: 1.** The proposed amendment to North Dakota Administrative Code § 33-16-02.1-09 which would allow the availability of softening or other treatment methods to be considered in determining whether ambient water quality meets the requirements of the department should be modified to require that the NDDH also take into account the time necessary to implement softening or other treatment methods, and the other availability of monies necessary to pay for them, as grants to individuals or municipalities, or both.

**Response:** The Sheyenne River from 0.1 mile downstream from Baldhill Dam to the confluence with the Red River is designated as suitable for municipal water supply with a sulfate standard of 450 mg/L. Water quality standards for this portion of the Sheyenne River are protective of the identified beneficial uses and have not been identified for change. Additionally, the department can only require drinking water treatment sufficient to comply with the enforceable standards established in the Safe Drinking Water Act. Treatment beyond that required by the Safe Drinking Water Act is a decision typically made by the local utility or municipality. The department will assist any city to secure funding to improve the quality of its drinking water as funds are available and as appropriate by state and federal law.

**Comment: 2.** NDDH should not approve the proposed amendment to North Dakota Administrative Code § 33-16-02.1-09 1.b. that states “The Sheyenne River from its headwaters to 0.1 mile downstream from Baldhill Dam is not classified for municipal or domestic use.” The purpose and function of Fargo’s stored water in that reach is municipal and domestic use.

**Response:** There are no points of withdrawal or diversion in this reach of the Sheyenne River that are used for municipal water supply. At the point of diversion for Fargo’s municipal water supply, the standards have not been modified and will stay the same as they have been historically. They are consistent with standards classified for municipal or domestic use.

**Comment: 3.** The proposed amendment to North Dakota Administrative Code § 33-16-02.1-09 3.b. which states that “[r]egulated pollution control efforts must be developed to achieve compliance with these water quality standards,” should be modified to delay the implementation of the 750 mg/L standard to 0.1 mile downstream of the Baldhill Dam until pollution control efforts have been developed and implemented to treat sulfates to a level of 250 mg/L in West Fargo.

**Response:** Regulated pollution control efforts are those that the department permits under the North Dakota Pollutant Discharge Elimination System (NDPDES) (Section 402 of the Clean Water Act) or are certified under Section 401 of the Clean Water Act. All regulated activities are in compliance with the proposed amendment.

**Comment:** 4. Implementation of the proposed amendments as to increased sulfate and eliminating the designation of Lake Ashtabula for municipal and domestic use should be deferred until the NDDH has conducted a regulatory analysis: (a) of the impact of these changes on the funding and implementation of the Red River Valley Water Supply Plan, and (b) the State's ability to provide \$45 million to treat Fargo's water for sulfates in excess of the state and federal standards for sulfate in drinking water.

**Response:** See the response to Comment 1. Under the Safe Drinking Water Act, sulfate in drinking water is not a regulated enforceable parameter, instead it is deemed as a secondary non-enforceable standard. This determination is reinforced by sulfate concentration recommendations or stream standards established by adjacent states and the Centers for Disease Control as follows: In addition the stream standards in the following table reinforces that the existing sulfate standard at the point of diversion is consistent with adjacent jurisdictions.

<b>Stream Standard Sulfate Concentration in mg/L</b>		
Manitoba <sup>1</sup>	500	Stream Standard for Domestic Use
South Dakota <sup>2</sup>	500 (30-day average)	Stream Standard for Domestic Use
South Dakota <sup>2</sup>	850 (one-day maximum)	Stream Standard for Domestic Use
North Dakota	450 (30-day average)	Stream Standard for Domestic Use

<sup>1</sup>Manitoba Water Quality Standards, Objectives and Guidelines Final Draft, November 22, 2002.

<sup>2</sup>Administrative Rules of South Dakota 74:51:01, 02, 03.

### **Consumption**

<b>Location</b>	<b>Sulfate Concentration mg/L</b>	<b>Notes</b>
Minnesota	400	For Baby Formula
Centers for Disease Control	500	Recommendation for Human (Attachment II)

Based upon the above references and EPA recommendations, the designated uses and public health are maintained and protected under the water quality standards at the points of existing drinking water diversions. The proposed changes are also not expected to impact the operation of the Red River Water Supply plan as long as all

discharges into the Sheyenne River are compliant with the water quality standards as proposed.

**Comment:** 5. The State should provide Fargo with historic and future water quality sampling data from the Devils Lake outlet, upper Sheyenne River, Lake Ashtabula, and lower Sheyenne River for review. The water quality sampling data should include sulfates and other analytes of interest as detailed in the first attached Technical Memorandum.

**Response:** The department has made publically available detailed water quality monitoring data routinely collected from Devils Lake, the Sheyenne River and Red Rivers to the Canadian border. These data are updated periodically and posted for public review and downloading from the department's website ([www.ndhealth.gov](http://www.ndhealth.gov)). In addition, the department has provided water quality data to the city of Fargo in the past upon its request and will continue to do so.

**Comment:** 6. The State should work with public water systems that utilize the Sheyenne River to complete additional sampling and develop a model to predict water quality impacts in the Sheyenne River based on various discharge rates and sulfate concentrations associated with operation of the Emergency Outlet.

**Response:** In cooperation with the North Dakota State Water Commission, the U.S. Geological Survey (USGS) is modeling the Sheyenne River to its confluence with the Red River. The modeling results are preliminary and have not been released. Representatives from the cities of Valley City and Fargo have provided input as to the overall objective of the modeling and relative input variables. The modeling effort involves stochastic simulation of the effects of a 250-cubic- feet-per-second (cfs) release with a specific sulfate concentration from the Devils Lake outlet into the Sheyenne River (Attachment VIII). Another effort being conducted by the USGS is to develop a real-time hydrodynamic and water quality model for Lake Ashtabula (Attachment IX). The purpose of the model is to estimate the water quality impact of water released through the outlet from Devils Lake under various hydrologic conditions. The constraint that will limit the amount of water released through the outlet is the state water quality standard, specifying a maximum of 450 mg/L sulfate below Baldhill Dam. It is the department understanding that the cities of Fargo and Valley City have been involved with a workgroup addressing the modeling activities. More important than the modeling will be the routine water quality monitoring data collected at various locations along the Sheyenne River, Lake Ashtabula and the Red River. This data will also be used to evaluate changes in water quality and will be an important tool in determining the operational parameters of the Devils Lake outlet. In the final analysis, acceptable changes in water quality below the established standards will be determined based upon modeling, real world monitoring activities and input from interested parties upstream/downstream of the outlet.

**Comment:** 7. The sampling plan should be completed and the model should be developed to address various technical issues in the Sheyenne River and Lake

Ashtabula related to flows, constituent concentrations, seasonal variations, tributary impacts, etc., as detailed in the second attached Technical Memorandum.

**Response:** Water quality monitoring and modeling is an ongoing effort and will continue. This information will also be provided to the public. Also refer to response to comments 5 and 6.

**Comment:** 8. The State should work with public water systems that utilize the Sheyenne River to develop an operating plan (“Operating Plan”) for the Devils Lake outlet that maximizes flooding relief to Devils Lake and minimizes water quality impacts to the Sheyenne River downstream of the outlet. The Operating Plan should be developed with mutual input from the State and downstream water systems as defined in a Memorandum of Understanding (“MOU”) entered into between the State and downstream water systems.

**Response:** To address issues related to the operation of the Devils Lake outlet, the North Dakota Legislature established the Devils Lake Outlet Advisory Committee (N.D.C.C. § 61-36-01, 02, 03 and 04). The purpose of the committee is to balance downstream interests with flood protection in Devils Lake. The Devils Lake Outlet Advisory Committee makes recommendations to the State Engineer who is responsible for outlet operations. Compliance with water quality standards will act as a constraint on the operation of the Devils Lake outlet, and input from the participants will address concerns by downstream users. The department is not a participant in the Memorandum of Understanding.

**Comment:** 9. The Operating Plan should be developed to address various technical issues related to operation of the outlet as detailed in the second attached Technical Memorandum.

**Response:** An operating plan developed by the Devils Lake Outlet Advisory Committee, the State Water Commission and the State Engineer must be in compliance with state water quality standards. Note also response to comment 8.

**Comment:** 10. The sampling, predictive model, and Operating Plan should be completed before the State initiates pumping from the Devils Lake Emergency Outlet into the Sheyenne River above a flow rate of 100 cfs.

**Response:** The water quality standards regulate the quality of water and are not flow related. The operation of the outlet must be coordinated with hydrologic conditions in the Sheyenne River and Lake Ashtabula to ensure compliance with water quality standards.

**Comment:** 11. As long as the Operating Plan and MOU remain in effect, the State should not seek additional Rule amendments related to sulfate concentrations on the Sheyenne River below the Devils Lake outlet unless agreed to by all Parties to the Operating Plan and MOU.

**Response:** The department will continue to evaluate the standards under the triennial review process as required, reviewed and approved/denied by the EPA. Other changes as requested by the Devils Lake Outlet Advisory Committee or identified from the evaluation of new water quality data will be initiated as appropriate, according to state law. Proposed changes will be subject to the full public participation and independent review process as identified in state and federal law.

**Comment: 12.** If the State determines that the Operating Plan cannot successfully maintain the sulfate concentrations at West Fargo at 300 mg/L or less while operating the Emergency Outlet, the State should provide equivalent financial assistance to all downstream water systems on the Sheyenne River for additional treatment necessary to meet the EPA secondary standard and NDDH recommended upper limit for sulfate concentration in drinking water.

**Response:** The municipal water supply designated use will be maintained in the lower Sheyenne River as identified in state water quality standards. Issues relating to the desired concentration maintained below the accepted standard of 450 mg/l will be addressed by the state-mandated Devils Lake Outlet Advisory Committee and is beyond the mandate of the department. Also, note responses to comments 1 and 4.

### **Response to Comments - Other**

As discussed above, the department chose not to adopt the emergency rule as a final rule. At the recommendation of EPA, the department included the proposed sulfate concentration modification for a segment of the Sheyenne River as part of the department's required triennial review of the state's water quality standards. The department has considered all public comments on the emergency rule as noted in the following pages.

**Comment: 13.** The allowable increase in sulfate from 450 mg/L to 750 mg/L will be harmful to aquatic biota.

**Response:** The department used the best available toxicological data to support raising the allowable sulfate concentration. The department acted conservatively in establishing the 750 mg/L sulfate criteria. Based on hardness and chloride concentrations typically found in the Sheyenne River and Devils Lake, a much higher sulfate concentration (than that being considered by the department) is protective of aquatic life (Supportive Analysis, Attachment I).

**Comment: 14.** The North Dakota State Water Commission plan to increase the flow from Devils Lake from 100 cfs to 250 cfs will cause downstream flooding, loss of habitat and higher groundwater levels.

**Response:** The emergency rule pertains to the allowable sulfate concentration and is not flow related. The State Engineer, the Devils Lake Outlet Advisory Committee and other interested parties provide direction on how the outlet is operated. The operating plan must be in compliance with the Standards of Quality for Waters of the State.

**Comment: 15.** The Emergency Rule is unnecessary because the danger of outflow from the natural outlet through Tolna Coulee is minimal and does not constitute an imminent peril.

**Response:** The justification for an emergency rule procedure identified several issues of concern which include, but are not limited to, the adverse impacts on local and regional infrastructure, flooded farmland and the potential for a release from Tolna Coulee (i.e., a natural outlet). At the time the emergency rule was implemented, the Devils Lake elevation stood at approximately 1,450.60 mean sea level (msl). The elevation of Tolna Coulee (the natural outlet) is 1,458.0 msl. According to a recent calculation by the USGS, the probability of the lake elevation exceeding 1,458.0 is 8.1 percent in 10 years, 5.1 percent within 5 years and 0.6 percent within one year. Since October 2000, the probability of the lake elevation exceeding 1,458.0 has steadily increased (Attachment IV). The possibility of lake elevations reaching 1,458.0 msl were updated in 2010 without consideration for an operating Devils Lake outlet. The calculations indicate a 10 percent probability the lake will exceed 1,458 msl in 9 years. Due to the desire to address physical constraints, legal requirements and downstream issues, the release of Devils Lake water must start soon to reduce the rise in lake elevation and the probability of a natural outflow through Tolna Coulee. It is important to note that a wetter-than-normal, annual meteorological condition will decrease the effectiveness of the outlet. The impact on the Sheyenne River from a water release through the Tolna Coulee would be catastrophic. Exceedances of sulfate, other minerals and trace metals would render the Sheyenne River and downstream water unsuitable for their designated uses of municipal water supply, aquatic life and agricultural use. Downstream cities of Valley City and Fargo and individuals expressed concern over the possibility of an uncontrolled outlet through Tolna Coulee.

**Comment: 16.** An Environmental Impact Statement should be prepared on the proposed action.

**Response:** North Dakota state law does not require the preparation of an environmental impact statement (EIS), and National Environmental Policy Act (NEPA) requirements do not apply to this action. Although the department did not complete an EIS, substantial water quality monitoring and data review was conducted. Monitoring continues, including modeling Lake Ashtabula to determine sulfate transport through the reservoir. In addition to the water quality monitoring, biological assessments have been conducted throughout the years, most notably in 2004 and 2005. These assessments include the evaluation of periphyton, macroinvertebrates and fish. These assessments have established a base condition for the Sheyenne River.

In 2005, the Council on Environmental Quality conducted a *Limited Biota Survey for Devils Lake, N.D.* (Attachment V). The purpose of the study was to determine if species of known concern were present in Devils Lake. None of the aquatic macrophytes, aquatic invertebrates or fish of concern were found in Devils Lake.

In 2006, the International Red River Board initiated a parasite and pathogen study. The study included Devils Lake, the Sheyenne and Red rivers and Lake Winnipeg. The



interim conclusion of the study (Attachment III) was that no species of concern were found in Devils Lake that are not also present in the Red River watershed.

**Comment: 17.** Water quality monitoring should be conducted and made available to the public.

**Response:** The department, North Dakota State Water Commission and the USGS conducted extensive water quality monitoring on the Sheyenne River and Red River. Monitoring locations on the Sheyenne River include sites near Flora, Bremen, Warwick, Cooperstown, Lake Ashtabula, downstream from Baldhill Dam, Valley City and near Horace. The Red River monitoring sites are located near Harwood, Halstad and Pembina. (Map in Attachment I.) Major cations and anions, as well as nutrients and trace metals, are sampled at each of the sites on a regular basis (Attachment VI). The period of record varies, with the Sheyenne River beginning in 2005. The Warwick site record begins in 1950. The Pembina site dates back to 1969. The Halstad dates to 1997. All data is periodically updated and posted on the department's website ([www.ndhealth.gov](http://www.ndhealth.gov)) or is available on compact disk upon request (Attachment X).

**Comment: 18.** Drinking water supplies are not adequately protected and will seriously affect the quality of the water supply for Valley City and Fargo.

**Response:** The sulfate concentrations of the water in the Sheyenne River at the point of diversion for Valley City and for Fargo were considered prior to issuing the emergency rule. From 0.1 mile downstream from Baldhill Dam to the confluence with the Red River, no changes in the water quality standards were proposed. The sulfate concentration in the reach where Valley City and Fargo withdraw their water for municipal supplies from the Sheyenne River remains unchanged at 450 mg/L total sulfate (30-day arithmetic average).

In January 1999, the Centers for Disease Control and the EPA (EPA 815 R-99-002) (Attachment II) conducted a study and workshop to determine the health effects from exposure to sulfate in drinking water. They concluded there is not enough scientific evidence on which to base a regulation, but panelists favored a Health Advisory in place where drinking water has a sulfate level of greater than 500 mg/L. Based on water quality monitoring, all constituents in this reach of the Sheyenne River from 0.1 mile downstream from Baldhill Dam to the confluence with the Red River are in compliance with the federal and state Safe Drinking Water Act. Refer to response to Fargo comment 4.

**Comment: 19.** The water quality objective for Total Dissolved Solids (TDS) established by the International Joint Commission (IJC) at the international boundary will be exceeded at a greater frequency and magnitude.

**Response:** The water quality objective at the international border for TDS is 500 mg/L. This is also the water quality standard for the state of Minnesota. The department interprets the IJC agreement to mean that an actual exceedance must be based on empirical data, and therefore, no action is appropriate at this time. If an exceedance of

500 mg/L TDS objective at Emerson, Manitoba occurs sometime in the future, the department will assess the sources/causes and take appropriate actions.

**Comment: 20.** The risk for a transfer of alien and invasive organisms to Lake Winnipeg increases.

**Response:** Refer to response to comment 16.

**Comment: 21.** Increased nutrient concentrations in the Sheyenne River and Red River will cause water quality problems and eutrophication.

**Response:** Devils Lake has an extensive water quality data base. The amount of phosphorus and nitrogen discharged from Devils Lake is expected to be variable. Dissolved phosphorus and nitrate concentrations are similar in West Bay at Devils Lake and the Upper Sheyenne River. The department does not have nutrient standards for waters of the state. The department is currently in the process of developing a strategy for determining appropriate nutrient concentrations for specific water bodies and an implementation procedure.

**Comment: 22.** The economic losses resulting from the rising lake level are devastating. These include loss of deeded farm land, lost/reduced businesses, reduced tax revenue, and significantly increased cost to maintain infrastructure. The total cumulative cost is approaching \$1 billion.

**Response:** Comment noted.

**Comment: 23.** Flooding around Devils Lake has resulted in a decreased school enrollment, increased taxes to support public schools and increasing anxiety, fear and uncertainty in students.

**Response:** Comment noted.

**Comment: 24.** Wetland and farmland drainage in the Devils Lake Basin contribute to the rise in lake elevation.

**Response:** Comment noted.

**Comment: 25.** Scheduling the public hearing in Valley City during the middle of the business day decreases attendance.

**Response:** To give the interested public every opportunity to provide comment, the department scheduled three public hearings at different locations in the state. For those unable to attend the hearings, the department accepted written comments by mail, fax or email, as well as verbal comments by telephone. In addition, the deadline for written comments was extended to November 6, 2009 to accommodate the public.

**Comment: 26.** The Emergency Rule is an inappropriate procedure to change the Water Quality Standards.

**Response:** The North Dakota Department of Health implementation of the *Emergency Rule, July 15, 2009, the Findings and Statement of Reason* supports the emergency rule. See Attachment VII.

**Comment: 27.** The North Dakota antidegradation procedure (Appendix IV) of the Standards of Quality for Waters of the State were not followed.

**Response:** The antidegradation procedure does not apply to the emergency rule action. The procedure states that only regulated activities must follow the procedure. The emergency rule action does not require § 401 Water Quality Certification, and no permit is required under § 402.

**Comment: 28.** The department decided to adopt the Emergency Rule as permanent prior to the public hearing.

**Response:** The department conducted a preliminary analysis and review of possible water quality impacts and their potential to be out of compliance with the designated uses of the water. The department would not proceed if a reasonable likelihood existed that designated uses could not be maintained. The public hearing process provides an opportunity to present new information or data to the department that it had not previously been aware of or considered. The department reviews the scientific validity of that information, providing appropriate response and action.

**Comment: 29.** The Sheyenne River has one of the most diverse populations of organisms in the state of North Dakota including the most diverse population of mussels. These populations will be threatened to some extent with the increase in flow from Devils Lake of 250 cfs.

**Response:** The emergency rule is based on sulfate concentration and is not flow related. The constraint on operation will be the 450 mg/L sulfate standard 0.1 mile downstream from Baldhill Dam or other conditions as identified by natural conditions, the State Water Commission or the Devils Lake Outlet Advisory Committee.

**Comment: 30.** The 750 mg/L for sulfate is well under the known acute toxicity for most organisms. However, the effects from chronic exposure are unknown.

**Response:** The department used the best available toxicological data to support raising the allowable sulfate concentration. The department acted conservatively in establishing the 750 mg/L sulfate criteria based on hardness and chloride concentrations. A much higher sulfate concentration is protective of aquatic life (Supportive Analysis, Attachment I).

**Comment: 31.** The land around Devils Lake that is below 1,459 feet MSL is sovereign land and, therefore, the flooding of deeded land, which is actually sovereign land means no emergency exists.

**Response:** The department understands that 1,459 msl is the elevation of the Tolna Coulee, or the natural outlet, of the lake. Today due to removal of one foot of sediment, the natural outlet elevation is at 1,458 msl. The state's sovereign land is confined to

that below the waters of Devils Lake. Therefore, the state's sovereign lands do not encompass all of the land below 1,459 msl. Much of the land being flooded, or in danger of being flooded, is private land. The emergency rule was issued to address threats to both private land and public infrastructure, and to reduce the risk of a natural outlet.

**Comment: 32.** Electric power supply from Western Area Power Administration (WAPA) is necessary to operate pumps for the Devils Lake outlet. WAPA must determine there is a positive cost/benefit ratio.

**Response:** Not applicable

**Comment: 33.** The Emergency Rule is not legally defensible.

**Response:** The department made a determination that the emergency rule is legally defensible. (See Attachment VII.)

**Comment: 34.** The Emergency Rule is not economically defensible.

**Response:** See Attachment IV and Attachment VII.

**Comment: 35.** The reason for the proposed Emergency Rule and the department's Findings are not valid.

**Response:** The department used the best information that was available on July 15, 2009 to make the Findings and Statement of Reason. (See Attachment VII.)

**Comment: 36.** The department's Findings that emergency rulemaking is necessary is not substantiated and is not valid.

**Response:** The Findings are substantiated as identified in the Statement of Reason. (See Attachment VII.)

**Comment: 37.** The department's assertion that a regulatory analysis is not required is erroneous.

**Response:** The regulated community is intended to mean any municipal, industrial or other entity that has a permitted discharge under the NDPDES (§ 402 of the Clean Water Act). The emergency rule will not have a cumulative effect on these entities greater than \$50,000.

**Comment: 38.** The Emergency Rule does not comply with the Administrative Agencies Practices Act.

**Response:** The emergency rule was issued in accordance with the Administrative Agencies Practices Act. Specifically, the rule was issued in accordance with N.D.C.C. § 28-32-03.

**Comment: 39.** The Emergency Rule violates North Dakota Century Code § 33-16-02.1-02.

**Response:** This is a reference to the Administrative Code. All provisions in the Standards of Quality for Waters of the State were followed, including the protection of beneficial uses of the waters. All known and reasonable methods to control and prevent pollution are implemented. All regulated activities (Section 402 and 401) are in compliance.

**Comment: 40.** The Emergency Rule fails to maintain and protect waters having unique or high quality characteristics.

**Response:** The Sheyenne River, Lake Ashtabula and the Red River are not outstanding state resource waters as defined in Appendix IV procedures for Category 3 Waters of the North Dakota water quality standards. This section delineates the specific process which must be followed for a water body to be designated as outstanding.

**Comment: 41.** An Emergency Rule is not the proper procedure for modifying Water Quality Standards.

**Response:** The emergency rule process is one approved procedure by which state rules can be implemented, reviewed, and if appropriate, adopted. (N.D.C.C. § 28-32-03) Also, refer to response to comment 38.

**Comment: 42.** The State of North Dakota should have an expert from outside North Dakota to conduct an independent and comprehensive study on the effects of higher sulfates on drinking water, the environmental effects on wildlife, and fish species.

**Response:** The North Dakota water quality standards delineate the numeric criteria for protection of aquatic life and human health. The standards reflect the best available science for the protection of the beneficial uses of the water. On the state level, revisions to all standards or rules are independently reviewed by the North Dakota Water Pollution Control Board, the North Dakota State Health Council, Administrative Rules Committee and the public at large. After the state process concludes, the EPA must then independently review the proposal from North Dakota for potential approval/denial or recommend modification.

**Comment: 43.** If this sulfate concentration is allowed to increase in the Sheyenne River what other harmful substances will also increase and be harmful to aquatic life, wildlife or domestic animals?

**Response:** The concentration of some constituents will increase in the Sheyenne River as a result of the operation of the Devils Lake outlet. These constituents will be at concentrations below established water quality standards for the Sheyenne River. The degree to which a constituent will increase is a function of outlet operation, natural flow and background concentrations found in the river. Water released from Devils Lake will not result in the exceedance of approved water quality standards for those designated uses of the Sheyenne River. Agriculture is one of the designated uses in this reach of the Sheyenne River. Water quality standards protective of agricultural activities have been approved by EPA.

**Comment: 44.** The increase in sulfate concentration will have a harmful effect on the mussel population in the upper Sheyenne River.

**Response:** The supporting analysis confirms that the site-specific sulfate criterion of 750 mg/L is protective of aquatic life. Mussels are included in the broad category of aquatic life. Based on the above, we assume that mussels will continue to be present in the Sheyenne River. Four species of mussels were found in the upper Sheyenne River above the Devils Lake outlet. To provide additional information at this site above the existing outlet near Flora, N.D., 565 water samples were taken from 2005 to July 2009. Of these samples, 42 had a higher concentration than 750 milligrams per liter. It appears that the proposed sulfate standard of 750 mg/L is protective of those species.

The department is considering a mussel study in the Sheyenne River. The scope of the study is being developed. A working group of mussel experts is being organized. The members of the group will have expertise/experience in assessing mussel habitat, population dynamics, taxonomy and water quality requirements. Based on recommendations from the group, the department will finalize the study goals and objectives. It is anticipated the study will commence during the summer of 2010.